



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>A61B 5/05</b>		<b>A1</b>	(11) International Publication Number: <b>WO 00/12005</b>
			(43) International Publication Date: 9 March 2000 (09.03.00)
(21) International Application Number: PCT/GB98/02952 (22) International Filing Date: 1 October 1998 (01.10.98) (30) Priority Data: 9818790.9                      28 August 1998 (28.08.98)                      GB (71) Applicant (for all designated States except US): DE MONTFORT UNIVERSITY [GB/GB]; The Gateway, Leicester LE1 9BH (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): WANG, Wei [CN/GB]; 23 Fairstone Hill, Oadby, Leicester LE2 5RL (GB). McCORMICK, Malcolm [GB/GB]; 125 Knowle Lane, Sheffield S11 9SN (GB). (74) Agents: McNEIGHT, David, Leslie et al.; McNeight & Lawrence, Regent House, Heaton Lane, Stockport, Cheshire SK4 1BS (GB).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  Published With international search report.	

(54) Title: APPARATUS AND METHOD FOR DETECTING ABNORMALITIES IN BODILY MATTER

## (57) Abstract

There is disclosed electrical impedance tomography apparatus adapted to detect abnormalities in bodily matter comprising: electrical signal generating means for generating electrical signals at a plurality of frequencies; an electrode arrangement for applying the electrical signals to the bodily matter and detecting electrical impedance properties of the bodily matter; and data processing means for correlating the detected electrical impedance properties with the presence or absence of abnormalities in the bodily matter; in which electrical signals of a frequency greater than 1 MHz, preferably greater than 2 MHz, more preferably greater than 3 MHz and most preferably greater than 4 MHz are applied to the bodily matter.

